

BI-500

User Manual



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- The supplied basic programs are protected under. Reproduction, transfer or deletion of the programs without prior consent is strictly prohibited.
- Depending on users' environments, programs or peripherals, some parts of this Product may not work normally
- This wireless device may cause propagation interference, and so, it cannot be used for life-saving services

Trademark



PIDION aims for leading brand in the future mobile industry.

As a global brand representing the image of reliability, representativeness, and cutting-edge technologies, this mark has been registered by Bluebird Soft Inc. around the world to be protected under trademark-related laws.

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Safety Instructions

Read these instructions and warnings to use the Product in a safe manner and to prevent accidents.

1. Caution for Product Use

- This Product is EMC-compliant. For safety and health, use the authentic parts supplied by the manufacturer. Any inauthentic part may affect safety.
- Do not modify, disassemble or repair the Product at your discretion. Manufacturer if there is a problem in the Product. Also, make sure to follow the warnings and Instructions. If you fail to follow any of the above instructions, no warranty service will be provided.
- If the Product is wet, do not put it in a device that may heat the terminal (heater, microwave oven, etc.). Heating batteries may cause an explosion, deformation or fault.
(Water or any other liquid will change the color of the label inside the terminal. In this case, no warranty service will be provided.)
- Do not use the product on an airplane or in a hospital and also do not operate the product while driving a car.
- Do not use this Product in a hot or humid place. Using the Product under a hot/humid temperature such as rain or sauna may cause a trouble. In this case, no warranty service will be provided.
- Avoid vibration and impact. When not in operation or when you are absent, pull out the power cord, and keep the Product in a safe place.
- Keep this Product away from magnetic products such as credit card, telephone card, bankbook and traffic ticket. The magnetic field of the terminal may affect the data
- Use dedicated batteries only and do not use the batteries for any other purpose than operating this Product. Using an inauthentic battery may reduce life of the Product, or cause an explosion. (In this case, no warranty service will be provided..)
- Do not place the eyes of a person and/or pet near the scanner exit window. Doing so can result in retinal damage and/or reduced vision.

2. Battey

[Warning]

- Do not shock,disassemble or short-circuit the battery pack.
- Do not expose the battery in hot or high humidity places.
- Never heat the battery not throw into a fire.
- Keep away from metal objects.

[Caution]

- Use only specified original batteries and chargers.
- Keep indoors the temperature between 0~40 (32~104F)
- The guarantee duration of the battery is 6 month from the sales.

About the Product

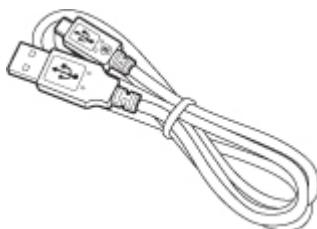
Please make sure all the above components are included.

1. Basic Components

Main set, AC/DC Adapter, Clip ,USB Cable, Neck strap, Wrist strap



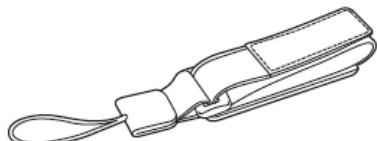
[Main set]



[USB Cable]

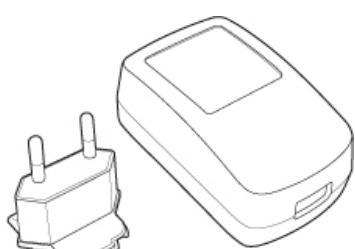


[Battery]



[Wrist strap]

2. Option Accessories



[Adapter+Clip]



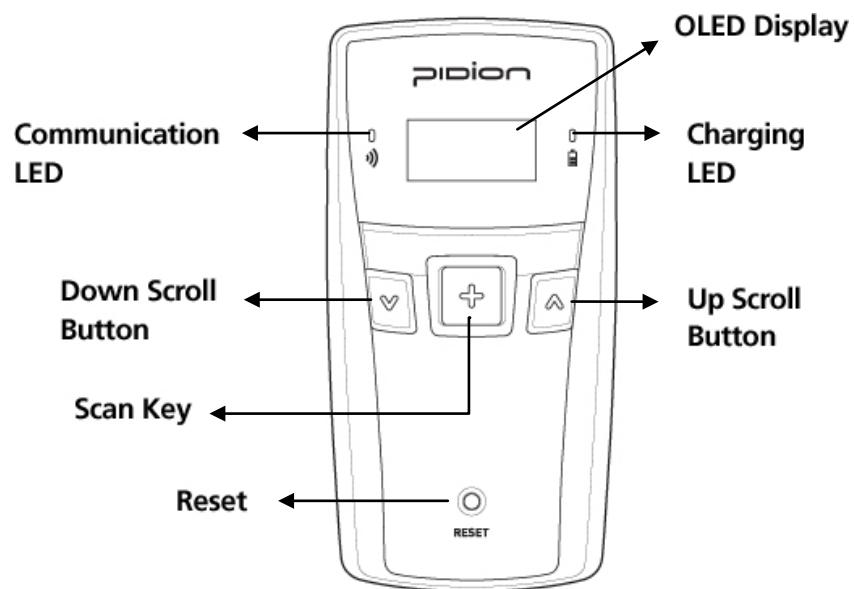
[Neck strap]

* The images in this User's Manual may not reflect the color and shape of the actual product.

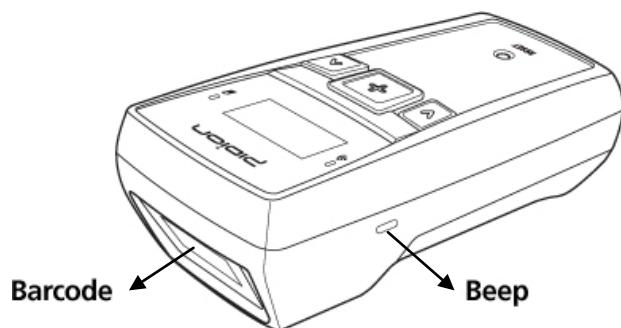
Checking names of parts

Be familiar with the name and function of each component before using the product.

1. Front



2. Side



Product Features

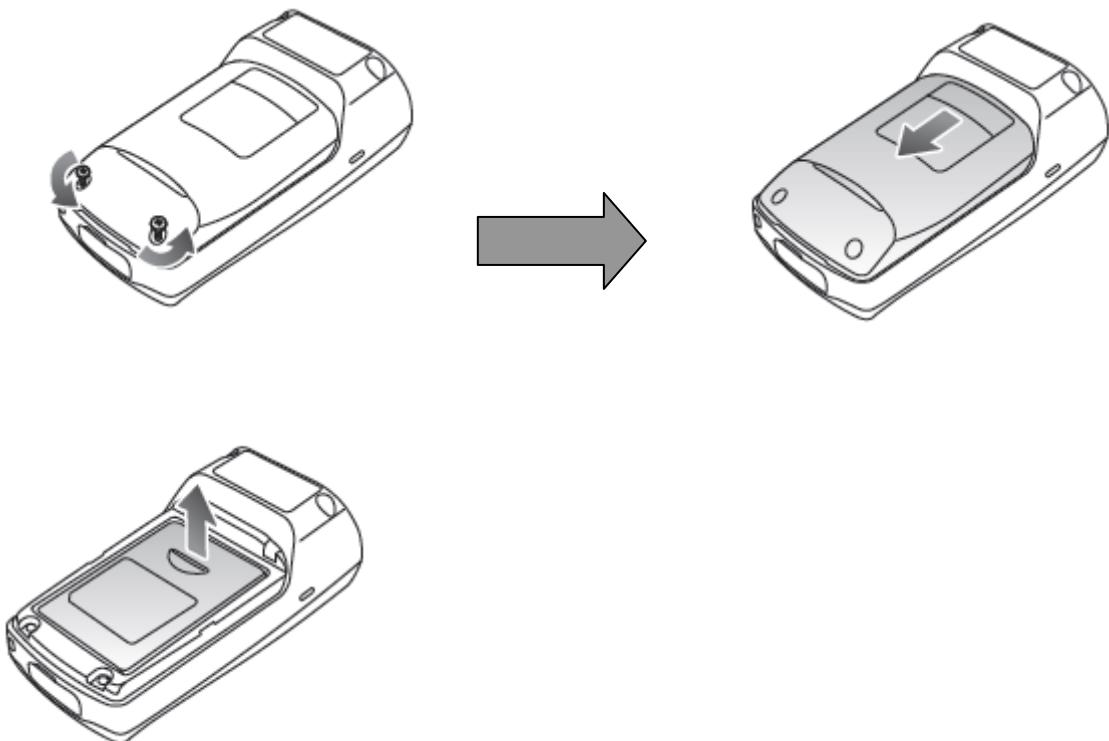
| Physical Characteristics | |
|----------------------------------|--|
| OLED Display | 128*64 Max.8 Linesx16 characters. |
| Dimensions (W x H x D) | 50 x 99 x 34mm / 2.0 x 3.9 x 1.3 inch |
| Weight | Excluding battery: 80g / Including battery: 110g |
| Indicator (LED) | Three-color LED (blue, red and green) |
| Alert Type | Beep sound |
| Input | Scan, up/Down Key, Reset Key |
| Standard Battery | Rechargeable, 3.7V, 1,130mAh, Li-ion |
| GPS | Integrated GPS |
| Performance Characteristics | |
| CPU | S3C2440A40, 400MHz |
| OS | Window CE Core |
| Memory | 32MB RAM / 32MB ROM |
| Interface | USB 1.1 Client |
| User Environment Characteristics | |
| Operating Temp | -10°C to 40°C / 14°F to 104°F |
| Storage Temp | -20°C to 60°C / -4°F to 140°F |
| Humidity | 90% non-condensing |
| Drop Spec | 5ft. / 1.5m drop to steel surface, 3 drops per 6 sides |
| Rain/Dust Protection | IP54 |
| Integrated Radio | |
| WPAN Radio | Bluetooth Class II V2.0 + EDR |
| Data Capture | |
| Barcode Scanner | 1D Laser Class II / 1D&2D CMOS Imager |

Learning scan,communication, battery LEDs

Notifies the operating information of the scanner to the user by tone volume or sequence.

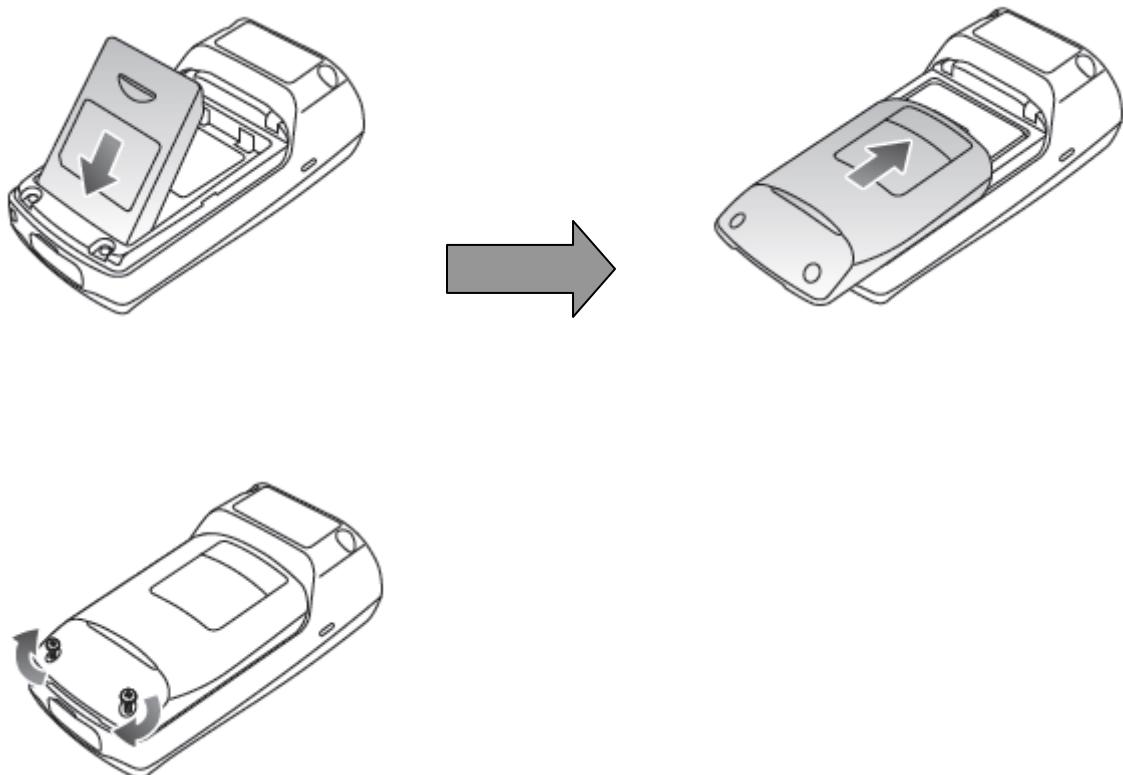
| Division | LED [Left] | LED [Right] | Beep |
|----------------------|----------------------------|-----------------|----------------------|
| | - Barcode reading | -Battery status | |
| Power On or Reset | Purple/Red/Green/Blue | | Low/medium/high once |
| Power Off | Red once time blink | | High once |
| USB connection | Blue | | High once |
| USB disconnection | - | - | Low/High Once |
| Barcode reading | Green once time blink | | High once |
| Storage Overflow | | | High 3 times |
| Data error | Red 3 times blinks | | High once |
| Data delete | Purple once time blink | | Low/medium/high once |
| All Data delete | Purple once time blink | | Low/medium/high once |
| GPS disconnection | Yellow 5sec blinks / cycle | | |
| BT connection | Blue | | High once |
| BT disconnection | | | Low/High Once |
| Battery not enough | | Blue | |
| Battery charging | | Red | |
| Full charged battery | | Green | |

Battery removal



1. Turn the product power off
2. Turn the screw on the battery cover counter-clockwise to loosen, then remove
3. Lift off the battery cover in the direction of the arrow.
4. Pull up a doorknob for battery and battery removed.

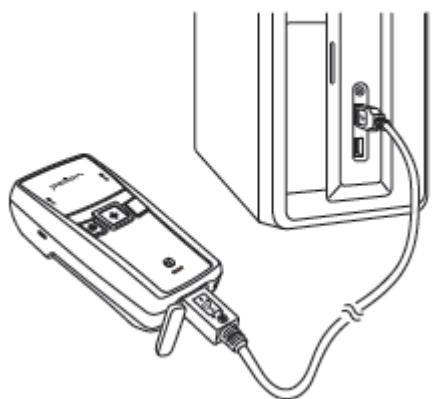
Insert the Battery



1. Put the battery in line.
2. Fit the battery cover to groove and close of battery cover.
3. Tighten 2 screw clockwise.

Battery Charging

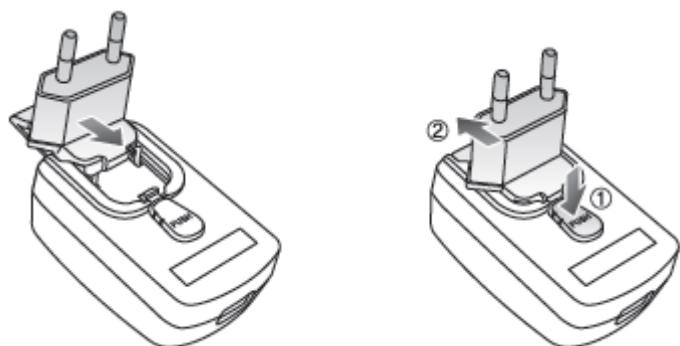
1. Charging with a charge cable



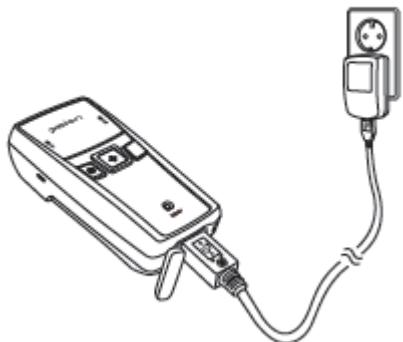
Connect the charge-USB cable to the micro-USB port at the bottom of the product and then connect to the PC or USB.

2. Charging with DC adapter

1) Connection Adapter and Adapter clip.



- 2) Connect the charge-USB cable to the micro-USB port at the bottom of the product and then connect to the DC adapter and AC plug.



Power On/Off

Please press V button on your left for 3 seconds to turn power on or off.

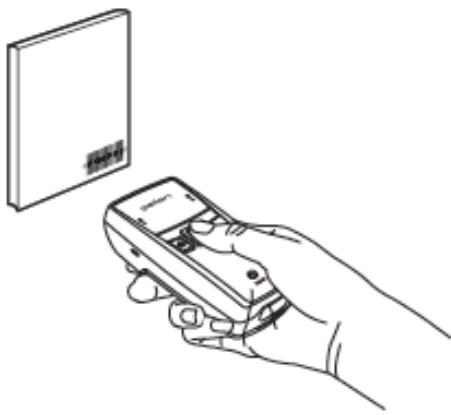


Sleep mode

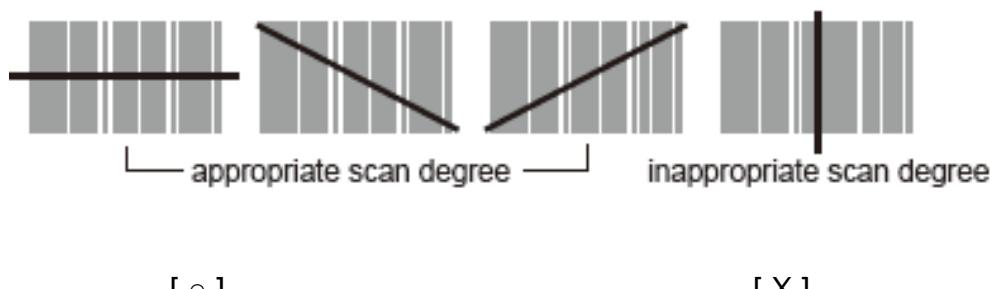
If the terminal stops operating more than 10 seconds while you are using, it becomes automatically turn into sleep mode. You can press any buttons to restart the terminal.

Barcode scan function

Face the scanner window toward the barcode at intervals of approximately 10cm, and press the scan button to read the barcode.



- When scanning barcode, do not direct the scanner window toward eyes of a man • an animal. It may cause damage to the retina and eyesight damage.
- If you use the product at a place with a big difference in ambient temperature, barcode can't be recognized temporarily due to moisture or frost in the barcode window.
- If the scanner window is perpendicular (0°) to the barcode, it is impossible to read barcode due to characteristics of the laser barcode engine. Thus, scan at a little inclined angle, not a right angle.



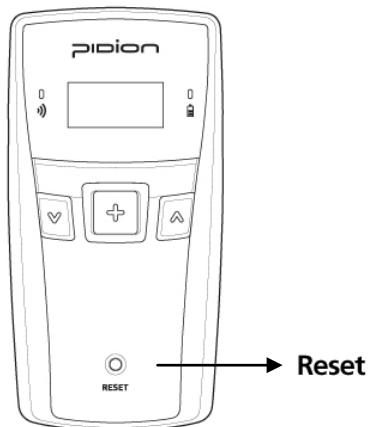
Button

| Key | Function |
|--|--|
| Up /Down Scroll button  | These key buttons are for scrolling up and down to see the menus in OLED display. (V: Scroll down/ ^ :Scroll up) |
| Barcode Scan Button.  | Barcode scanning and optional RFID Reading. |

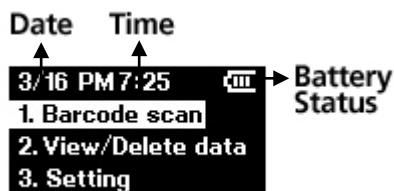
Reset

Press the [Reset] button on the front of the terminal slightly with the stylus pen.

If there is a collision between programs or a program is stopped due to an unexpected situation, you may use the soft reset function. It is like rebooting a computer. Any information that is not saved is lost.



Menu



* The above menu can be displayed differently according to OS image.

| Top Menu | Sub Menu | Option/Note |
|--------------|-------------------|---|
| Barcode scan | | Barcode operation |
| View data | | View data list of barcode reading |
| Setting | Barcode symbology | This menu lists all the barcode symbologies supported by your BI-500 and allows you to select the barcode symbologies you will be scanning. |
| | Battery status | View the current battery status |
| | Storage | View current memory capacity |
| | Date/Time | Set date and time |
| | Prefix suffix | Input fixed numbers or ID at the front or back of the barcode |
| | Scan Mode | Scan mode Time out |
| Delete data | Delete data | Delete selected data |
| | Clear data | Remove the data completely |
| Version | | View the version of the terminal |
| Power off | | Power off the terminal |

PC Sync

1. Installation of Driver – Window XP

If Microsoft ActiveSync is installed in a PC, set [Microsoft ActiveSync] ▶ <File> ▶ <Connection Setup> ▶ <Permit USB Connection> as inactivate. Driver is not installed if USB connection is permitted.

① Select the PC driver folder [BI500_PidionScan_Windows XP, Vista], and copy the driver file [usbser.inf] in the PC.

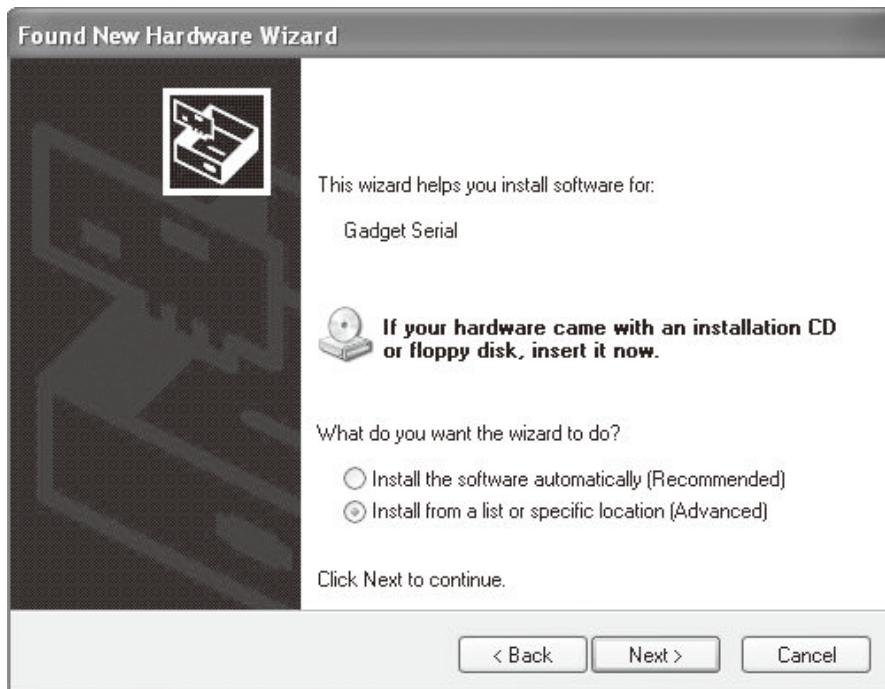
You can download the driver at our homepage. (<http://www.mypidion.com>)

② Power the terminal on and connect it to the PC using the USB cable

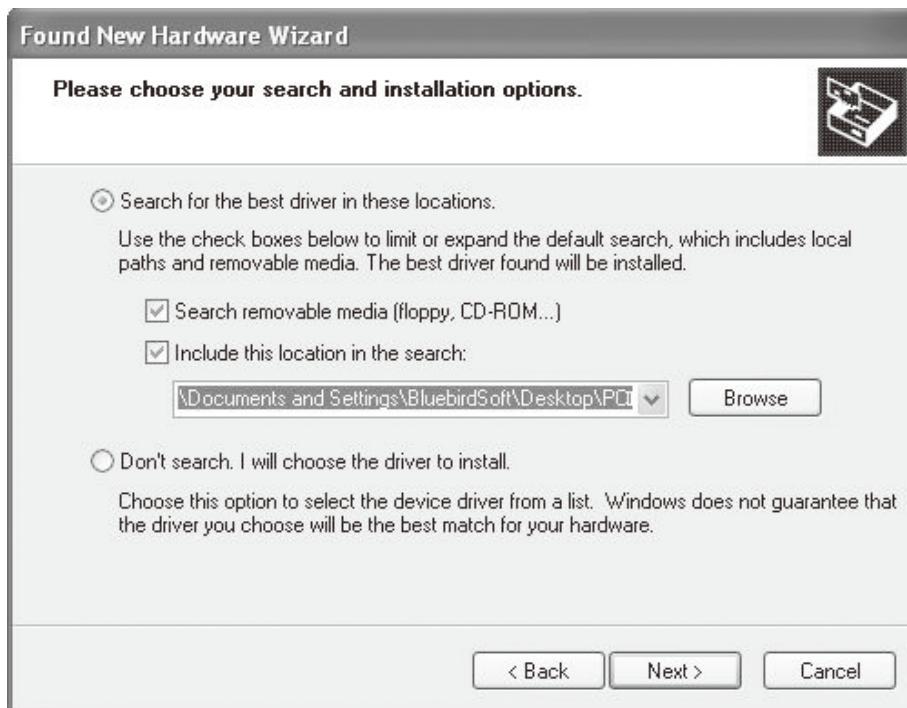
③ The [Found New Hardware Wizard] program is automatically run, and select <No, not this time>, and select the <Next> button.



④ Select the <Install from a list or specific location [Advanced]> menu and select the <Next> button.



⑤ Select the <Include this location in the search> menu and select the <Search> button, and select a folder in which the driver file [usbser.inf] is saved, and then select the <Next> button.



⑥ After the <Install Hardware> window appears, press the <Continue> button.

⑦ If you check <Finish> in the [Found New Hardware Wizard], the program is successfully installed.



TIP.

- If the window to search for [usbser.sys] file does not appear, or the device is not properly recognized even after the driver file [usbser.inf] is normally installed, separate the terminal from the PC, ► copy the [usbser.sys] file of in the <C:\WINDOWS\system32\drivers> folder, ► connect the terminal to the PC again.
- You can download the driver at our homepage. (<http://www.mypidion.com>)

Sending data to PC

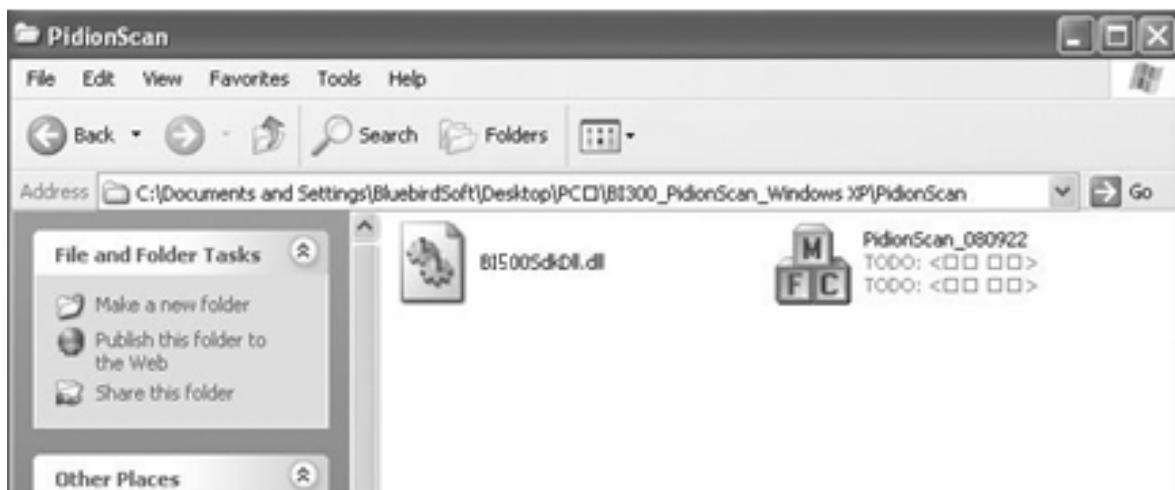
2. Installing PidionScan Program.

(Warning)

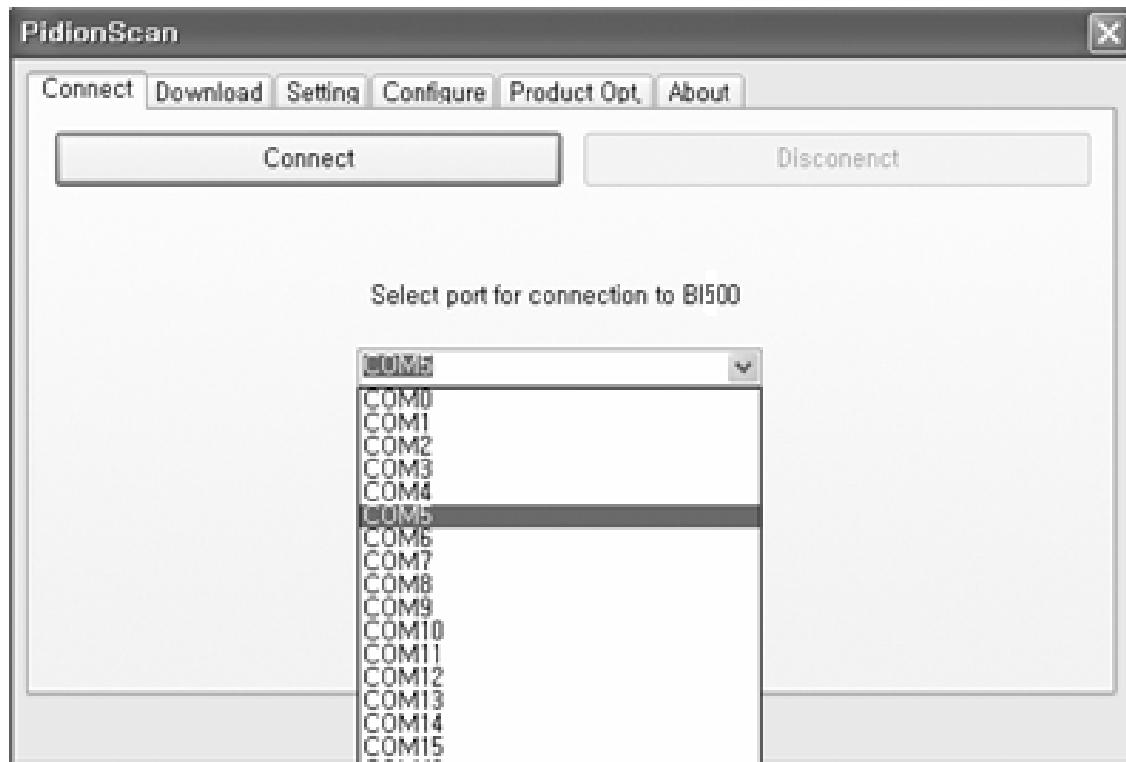
- The seen screen corresponds to the [Windows XP] version and it depends on the software version used.
- Image seen in the [Windows Vista] screen is different, but the function is the same as [Windows XP].

① Select the PC driver folder [BI500_PidionScan_Windows XP, Vista], and copy the [PidionScan_Winxp,Vista] folder in the PC, and select the [PidionScan_WinXp,Vista.exe] program.

You can download the driver at our homepage.



② Set <COM Port> in the [Connect] tab and select the <Connect> button.



TIP. <COM Port> of <Communication Port> is changed at each PC, so that check the number to which the Gadget Serial COM port is set.

To check <COM Port> to be set,

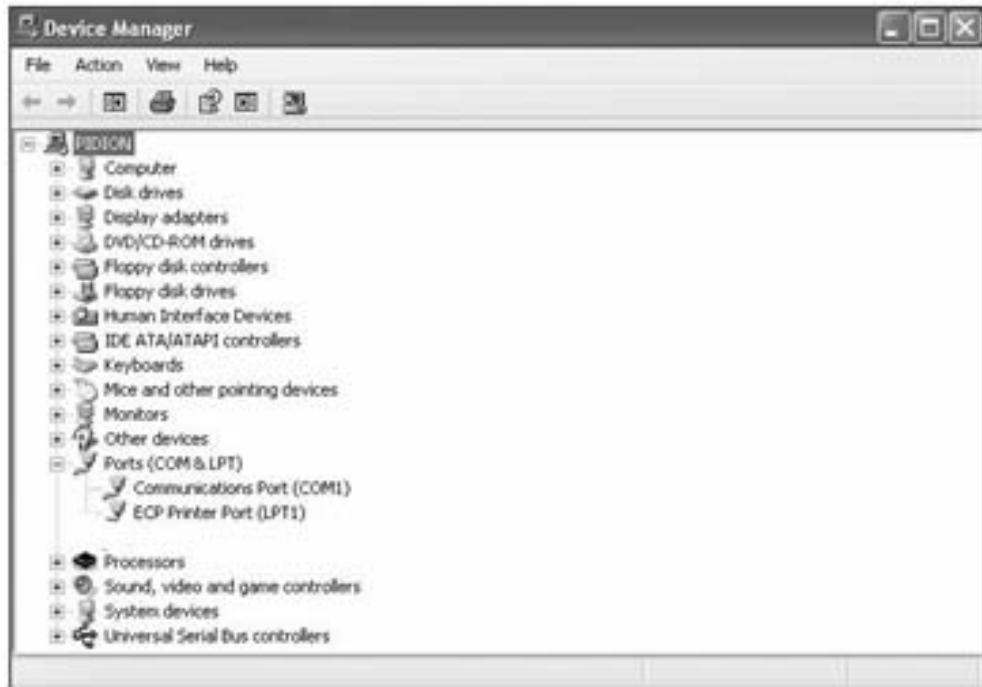
a. Right-click the mouse in [My Computer] of the PC, and select <Properties>.



b. Select [System Restore] ► [Hardware] ► <Device Manager>.



c. If you select <POrt (COM and LPT)> in <Device Manager>, you can check < Communication Port >.



③ For how to use the [PidionScan] program, refer to <Use PidionScan Program> on page 37.

Tip. Image seen in the PC screen is different, but the function is quite similar to PDA.

Sending data by PDA

You can exchange data by connecting the terminal to the PDA supporting Bluetooth, without the USB cable.

1. Procedures for data transmission.

- ① Install [Microsoft ActiveSync] in a PC. (See P-23)
- ② Connect the PDA and PC with the USB cable and install [PidionScan] in PDA, and disconnect.(See P-35)
- ③ Power the terminal on. (See P-13)
- ④ Set <Bluetooth> of the PDA. (See P-31)
- ⑤ Set the [PidionScan] program of the PDA. (See P-35)
- ⑥ Scan barcode with the terminal. (See P-14)
- ⑦ Scanned barcode information is displayed in the screen of the [PidionScan] program or in the Word/Memo of the PDA.

Tip.

- If the PDA and Bluetooth are properly connected, the Barcode reading communication lamp turns blue, and high signal tone is generated once.
- Even if the Bluetooth transmission fails after barcode scanning, the barcode data is automatically stored in the scanner.
- Because the Bluetooth interworking is disconnected while PDA is in Power Save mode, do not use Power Save mode when interworking with Bluetooth.

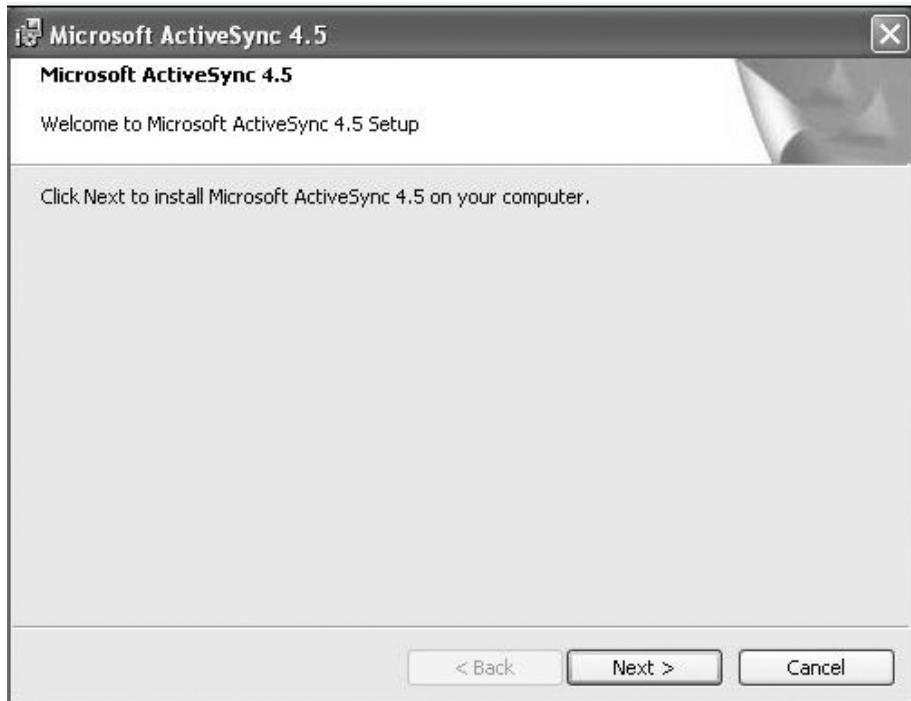
2. Installing ActiveSync.

To install the [PidionScan] program in the PDA, install the [MicroSoft ActiveSync] program in a PC.

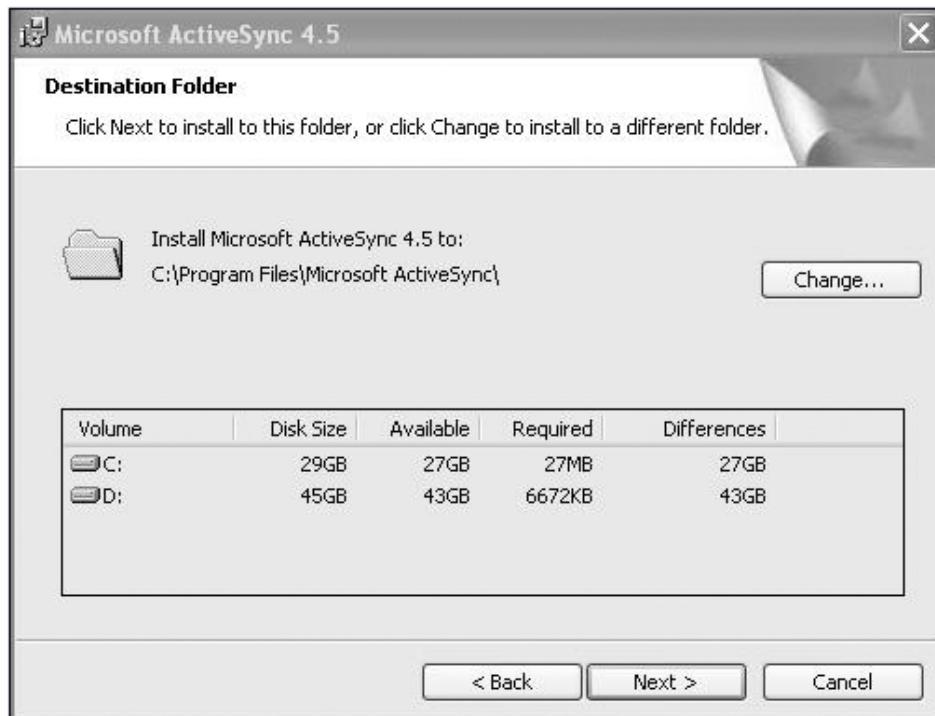
If the [ActiveSync] program is already installed in the PC, you need not install the program separately.

The seen screen corresponds to the [Microsoft ActiveSync 4.5] version and it depends on the software version used.

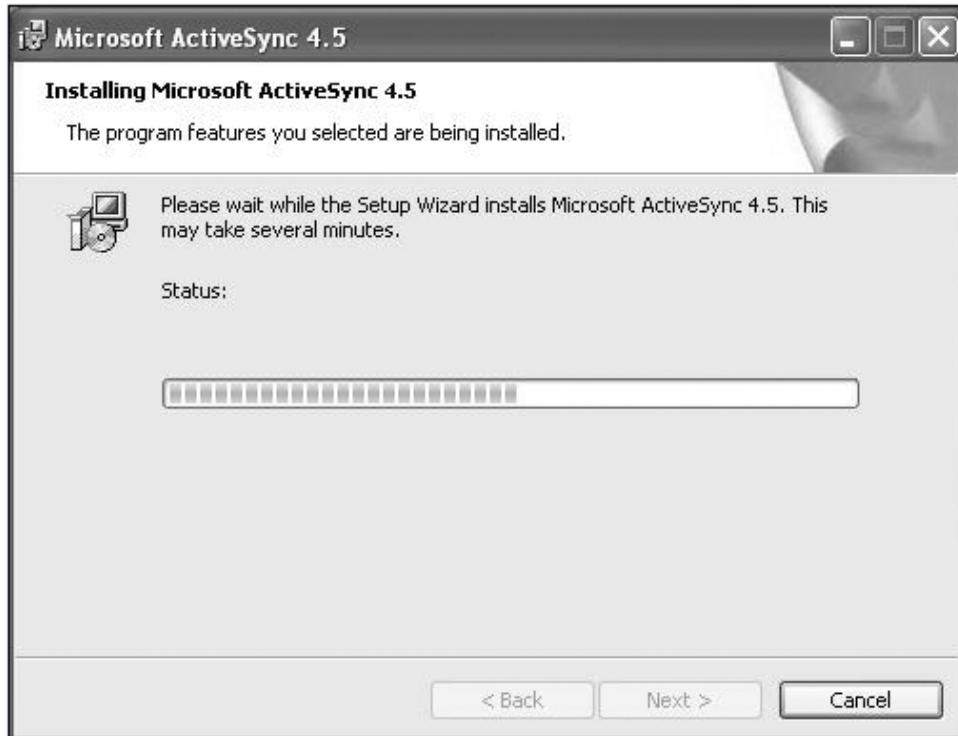
- ① Access the Microsoft's Website, and download [Microsoft ActiveSync], and install.



② Select the <Accept> button in the [License Contract] window, and ► fill in the <User ID> <Organization> in the [Customer information] window, and ► set <Installation Location> in the [Target Folder] window.



③ If ready to install, [Microsoft ActiveSync] is installed.

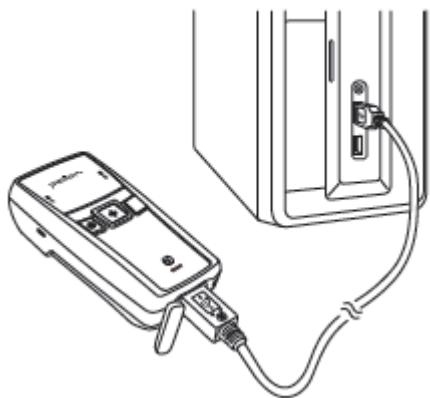


④ [Microsoft ActiveSync] installation is completed.

3. Installing PidionScan Program

- The seen screen corresponds to the [Windows Mobile] version and it depends on the software version used.
- Image seen in the [Windows CE] screen is different, but the function is the same as [Windows Mobile].

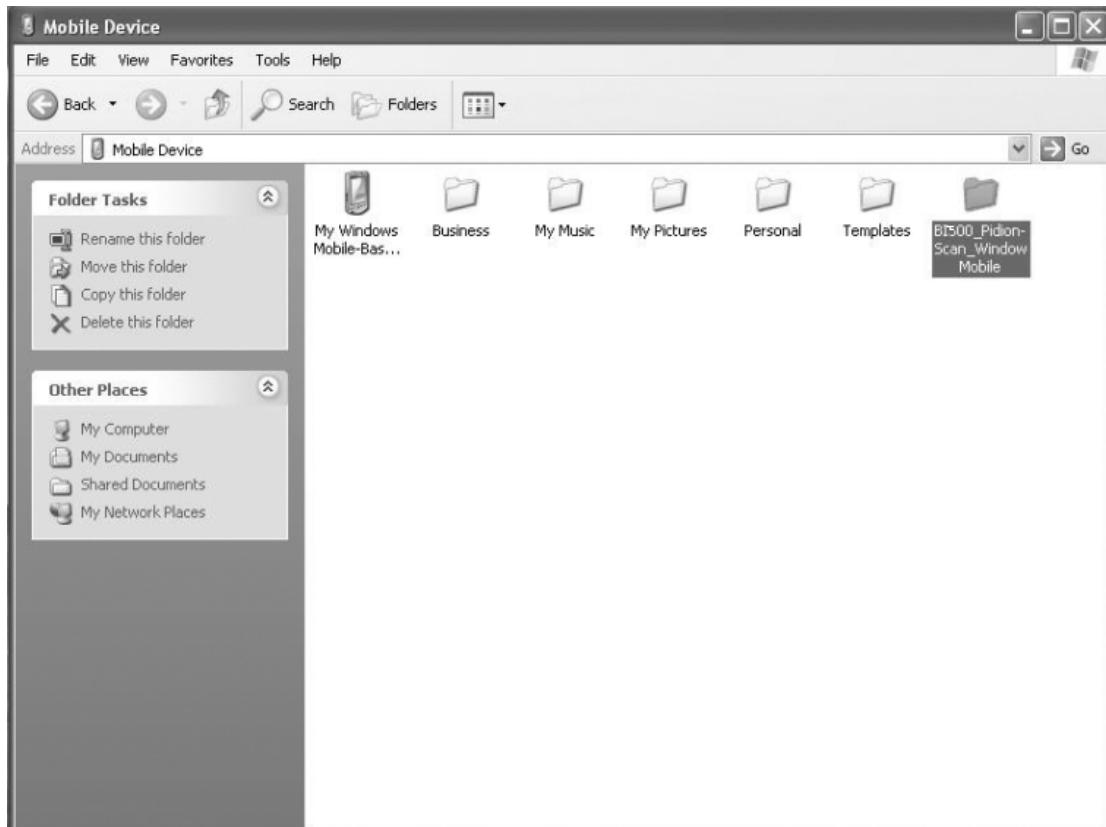
① Connect the PDA and the PC using the USB cable.



② Execute [Microsoft ActiveSync], and select the <Browse> button.



③ Copy the [BI500_Pidion-Scan_Windows Mobile] folder in the provided CD in the [Mobile Device] folder.



- Depending on software version used in PDA, install the [BI500_PidionScan_Windows CE] folder for Windows CE, and install the [BI500_PidionScan_Windows Mobile] folder for Windows Mobile.
- The <PidionScan_WinCE.exe, PidionScan_WinMobile.exe> file and the <BI500SdkDII.dll> file and the <BIDevSearch.dll> file are enabled only if they are installed in the same folder.

4. Bluetooth Power On/Power Off -1

If you want to connect other equipment using the Bluetooth, execute the Bluetooth function first.

① Select the [Start] ▶ [Set] ▶ [Connect], and ▶ [Wireless Administrator].



② Select <Bluetooth>.



: Bluetooth off (release)



: Bluetooth on (set)

4. Bluetooth Power On/ Power Off -2



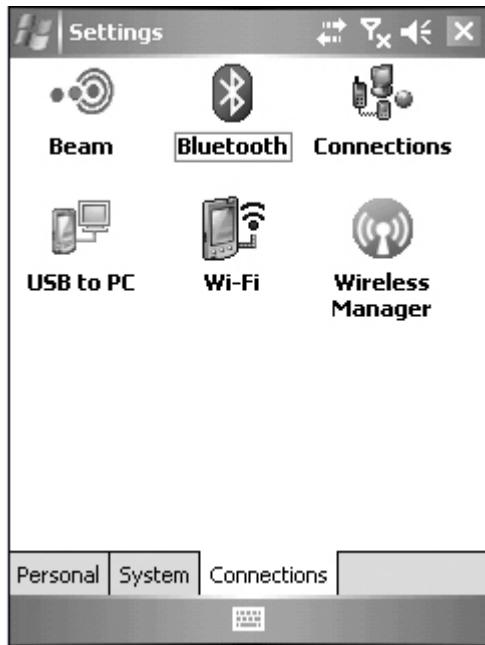
- ① Select  at the top of the screen and select [Wireless Administrator].
- ② Select <Bluetooth>.

Tip. Terminal equipped with Bluetooth can be connected without setting Bluetooth.

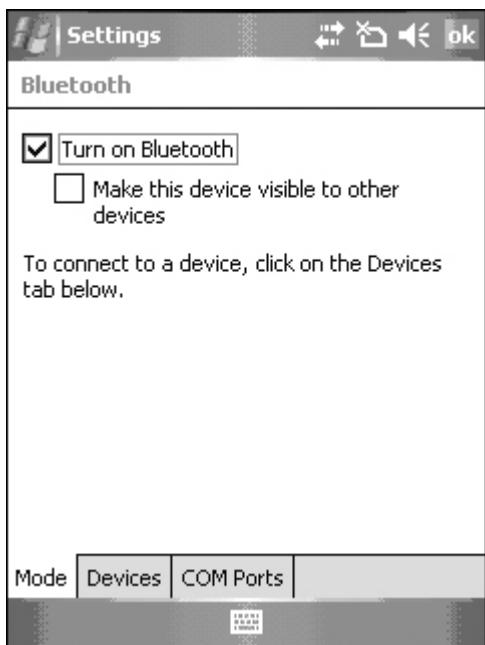
5. Bluetooth setting-Windows Mobile

The seen screen corresponds to the [Windows Mobile 5.0] version and it depends on the software version used.

- ① Select the [Start] ▶ [Set] ▶ [Connections] and ▶ [Bluetooth].



② Select <Turn on Bluetooth> in [Mode] tab.



③ Select <Add New Device> in the [Device] tab.



④ Select <BI-500> among the searched Bluetooth devices, and select the <Next>button.



⑤ Enter password and select <Next> button.

※ If the PDA and the terminal are connected for the first time, enter password to register.

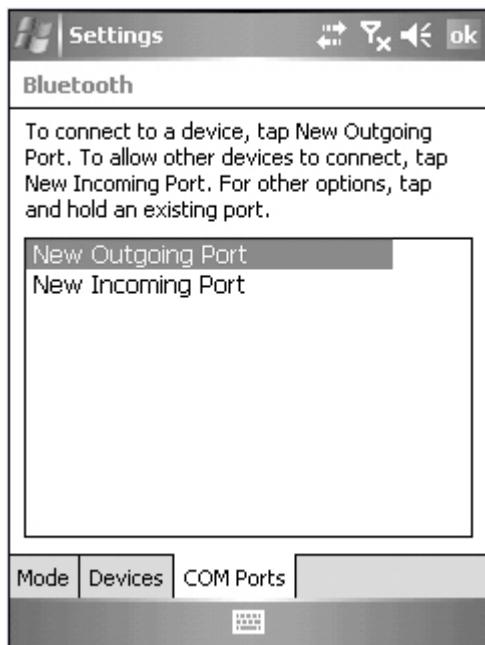
Default password is 1234, and the user can change the password.



⑥ Select <Serial Port> and select the <Finish> button.



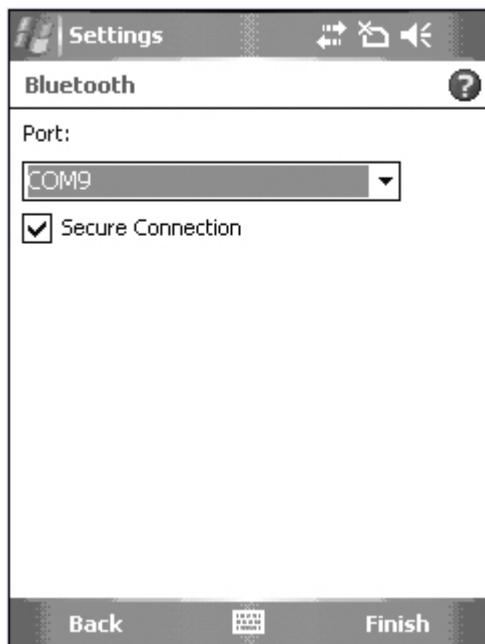
⑦ Select <New Outgoing Port> in the [COM Port] tab.



⑧ Select <BI-500> and select the <Next> button.



⑨ Select an unused port address and select the <Finish> button.

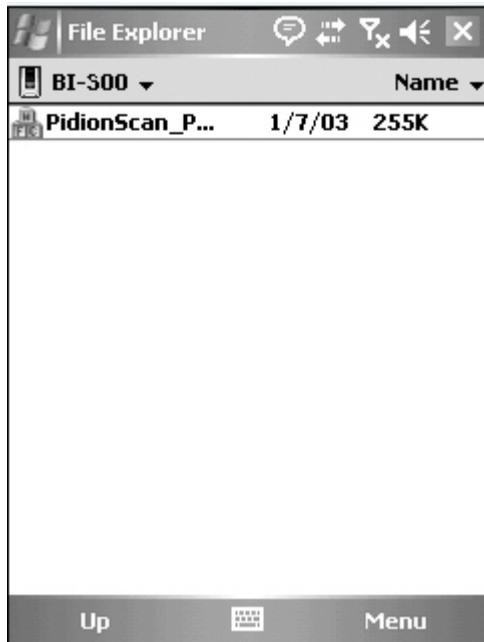


TIP. Unavailable if a port in use is selected and available only if a port not in use is selected.

Using PidionScan Program

Using the program named PidionScan, you can perform data communication with the PDA/PC, and set the function of a terminal.

Image seen in the PC screen is different from that of PDA, but the function is quite similar each other.

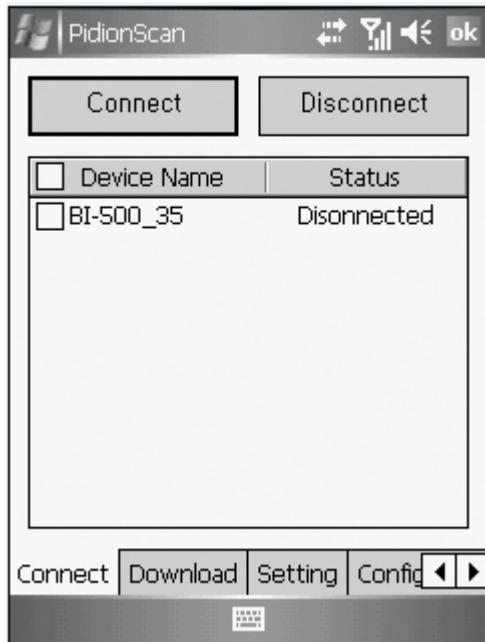


Click [PidionScan] installed in PDA/PC to execute the program.

In case of PDA, go to [Start] ► [File Browser], and then search for the folder saving PidionScan. Select [PidionScan] in the folder.

1. Connect

You can connect/disconnect communication between the terminal and PC/PDA through Connect/Disconnect.

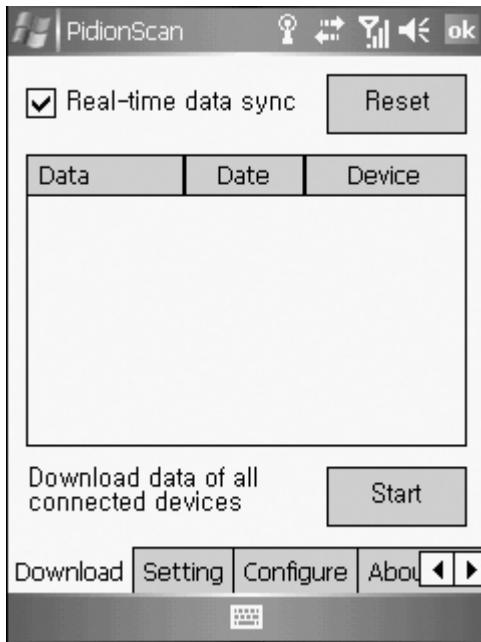


- Connect : Connect to the ticked device in the list.
- Disconnect : Disconnect to the ticked device in the list, among connected devices.
- Device Name; It is possible to distinguish many devices by the terminal serial number.
- Status : Display the progress status and results.
 - Connected : Connected normally.
 - Connecting : Attempting to connect.
 - Connect Fail : Fail in connection.
 - Disconnected : Disconnect.

2. Download

You can download data stored in the terminal.

- Real-time data sync : If ticked off, barcode values read in all connected devices are displayed in data sheet in real time.



- **Reset**

If you press Reset, barcode values read as Real-time data sync is cleared only from the screen.

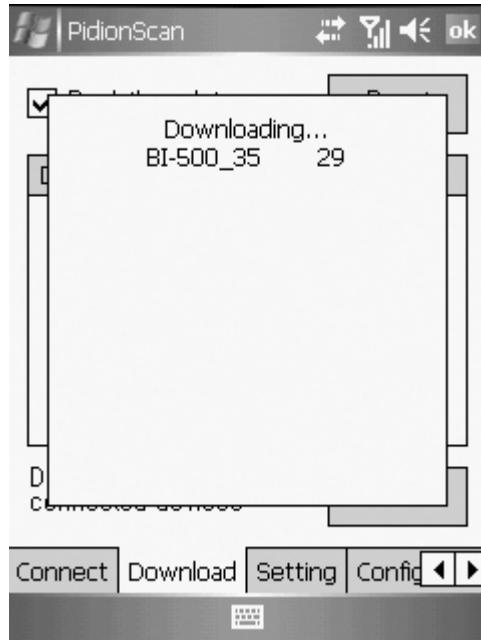
Tip. If too many barcode values are displayed in a data sheet in Real-time data sync state, sometimes, there may be a problem with program performance.

- **Data sheet**

- Possible to adjust the width of each row by drag.
- Scroll is automatically created if an item goes beyond the window.
- Unless otherwise, size only is left as blank.

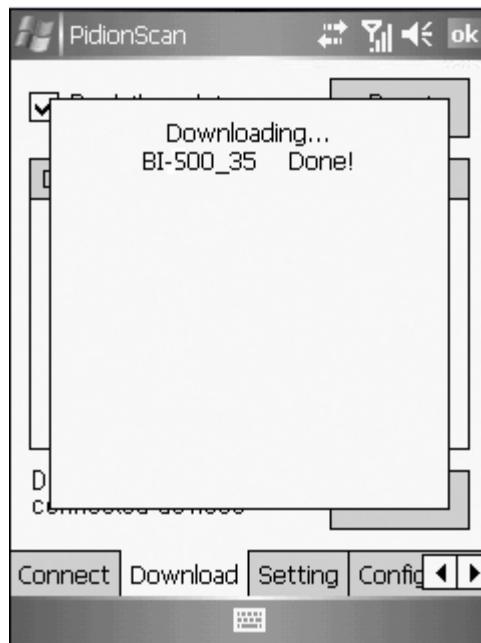
- **Download data saved in the device**

- ① If you press the <Start> button in the [Download] tab, the <Downloading> popup window appears (If the Popup window appears, the Download button is deactivated, and activated again after the completed Popup window disappears)



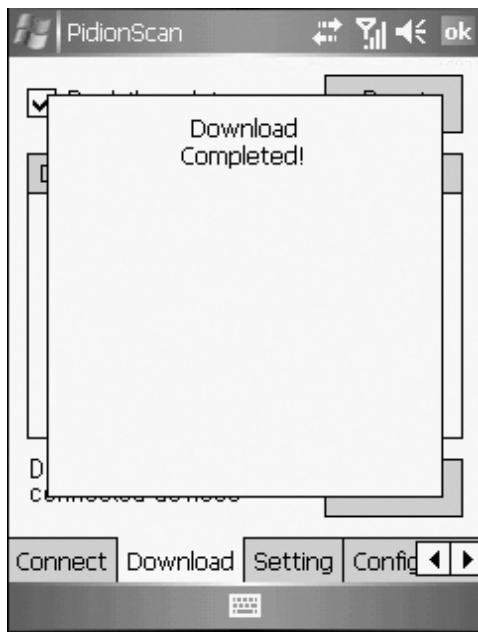
② Device IDs of all connected devices are displayed in the Popup window, and the download status per device is progressed by %.

IF download is completed, the <Done!> message is displayed, and the download of the next device gets started.

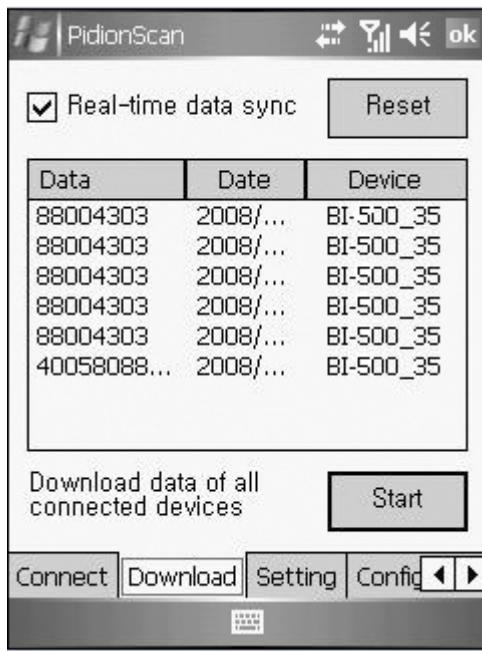


③ If download of all devices is completed, the <Download Completed!> message is displayed,

and automatically disappears in one second.



④ File name of download location is saved as <Device name_scandata.extension>. For PDA, downloaded files are saved in the <Device(my device)> folder, and for PC, downloaded files are in a folder where the EXE file of [PidionScan] exists



3. Setting

Auto re-connect



- Automatically re-connect if Bluetooth connection is disconnected.
- You can set the maximum number of attempt.
 - Time interval default is 5 seconds, the maximum number of attempt is 0~10 (impossible to automatically re-connect if 0)
- Default : 3times

Auto Real-time mode

- If you select the checkbox, barcode values read by If you click the check box, the barcode data from the terminal will be indicated on the exe window of notepad or word at your PC or PDA in real time.
- If you do not select the checkbox, barcode values are not displayed in real time.
- Time Stamp

Used to display date and time in the barcode information.

Example) 2010/11/20 19:26:13 01223334

date time Barcode information

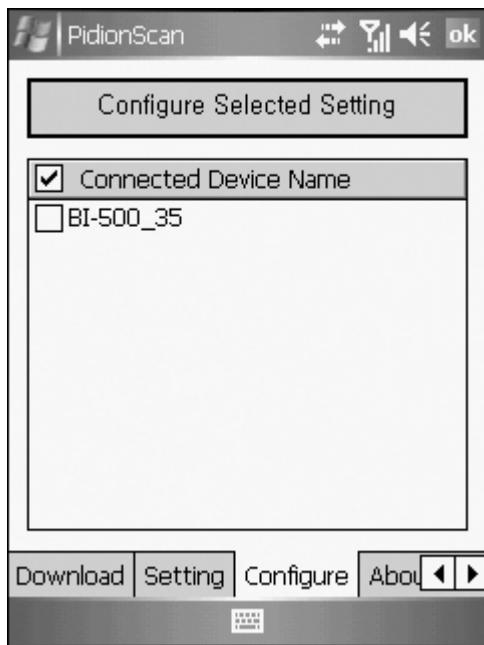
Tip. If you select the <Auto Real-time mode> checkbox, the <Time Stamp> checkbox is activated.

4. Configure

You can configure the environment such as terminal volume, memory.

For multiple accesses, you can select many terminals and apply set value at a time.

If you select the checkbox of a target terminal and click the <Configure Selected Setting> button, you can move to the submenu of Configure.



Tip. Change settings in each submenu, and check <Configure this tab>, and select the <OK> button at the right top, and then settings are applied.

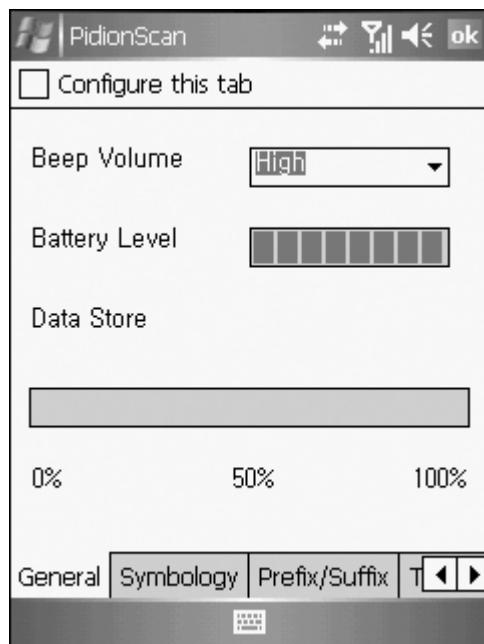
General

Beep Volume : You can adjust the beep volume to level 4(Off/Low/Medium/High).

(Default : High)

Battery Level : Battery level is displayed as High/Medium/Low.

Data Store : Memory usage is displayed and available memory is indicated as %.



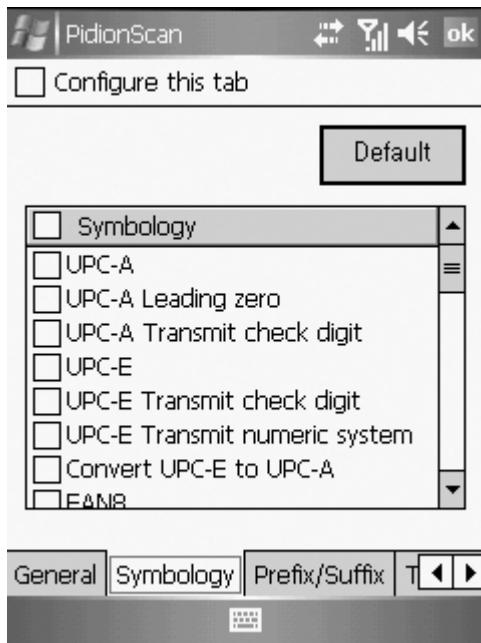
Symbology

You can set a barcode symbol. Select the checkbox of a barcode symbol.

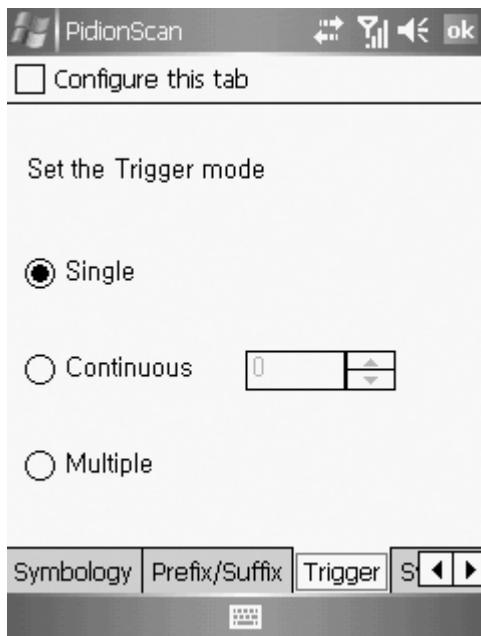
Default : Default barcode is selected.

Among the barcode symbols, Supplement code, Interleaved 2 of 5 Length Min, Interleaved 2 of 5 Length Max, MSI check digit, MSI check digit algorithm are needed to put the default value of symbol.

If you click the check box of barcode symbol, Sub Option which you can input the default value will pop up. Then, input the default value as below and push Set button.



Trigger



You can the Scan mode of the Scan button.

Single : Scans one barcode each time you press the Scan button once.

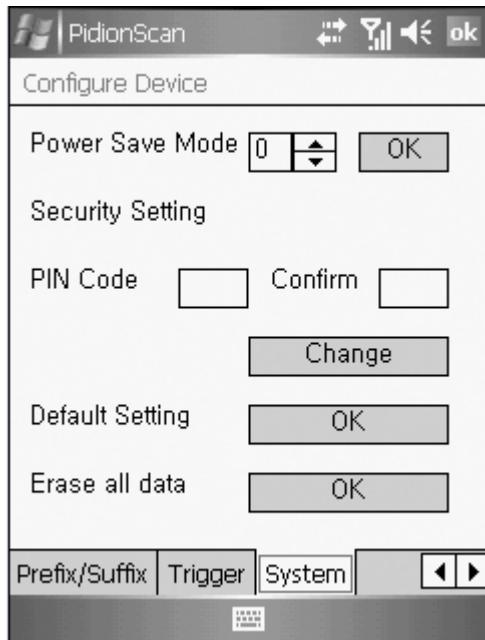
Continuous : If you press the Scan button once, the laser is continuously emitted, so that barcodes are read in a row. If you press the Scan button once again, laser emission is stopped. If you scan the barcode, after a certain period of time, even if it is read once, additional data can be read. You can set a certain period of time, and the range is 0~9999, unit is ms(1/1,000

of 1 second), Default is 2222ms.

Multiple: If you press the Scan button once, laser is continuously emitted, so that barcodes can be read in a row, but a read barcode is not read again.

If you press the Scan button one more time, laser emission is stopped.

System



You can change the Power Save mode and password of the terminal.

Power Save Mode : Set to the Power Save mode for saving power.

If you do not use a terminal for a certain period of time (minute), the terminal is changed to the Power Save mode.

Security Setting : Set password.

- Password is up to 4 numeric characters.
- PIN Code : Set password.
- Confirm : Confirm password to be set.
- Press the Change button and turn off and on the terminal again, then, password is changed.

Default Setting : All settings for the terminal are initialized to default setting. If you execute this, the terminal reboots as initialization.

Erase all data : Clear all barcode values saved in the terminal.

Q&A

If the terminal does not operate normally, please refer to

Q: Water comes into the barcode scanner. What shall I do?

A: First, remove the battery from the barcode scanner, and dry it up at the dry place for a certain period of time.

Q: Power is not on.

A: Check if the battery is inserted properly and use after charging the battery for a certain period of time.

Q: A battery is not charged.

A: Check if the barcode scanner is properly connected to the charger.

Q: Barcode is not scanned.

A: 1. Angle of scan many be incorrect. Scan at a right angle.
2. Barcode cannot be read if you scan barcode too far. Move close and scan barcode.
3. The barcode may be damaged. Scan other barcodes for check.

Q: Barcode data scanned by PDA is not transmitted.

A: 1. When transmitting Bluetooth, check if PDA supports the Bluetooth function.
2. Check if the Bluetooth of PDA is set properly.
3. When sending Bluetooth through data cable, check if cable is connected correctly.

Q: Data is not sent from PC.

A: 1. Check if data cable is connected properly.
2. Check if the connection program is correctly installed in a PC.

Q: Heat is generated in the barcode scanner

A: If you use the product for a long time, heat is generated sometimes. Use the product in relief because product performance is not affected.

Q: Lifetime of a battery is reduced.

A: Batteries are consumables. Lifetime may be reduced depending on period of use. Please, replace by a new battery.

If the terminal does not operate normally, please refer to:

- If a problem still remains even if you check the above items, please contact a nearby Customer Service Center.
- The warranty period (one year after the purchase date) for the product is one year.

Customer Service

1. Before asking for after-sales service

- Before requesting after-sales service, the user needs to back up data in the device in person.
- We do not backup products registered at the customers service center.

Therefore, we are not responsible for any damage or loss of data.

2 Customer care center of Bluebird Soft Inc.

- Phone : +82-2-1588-1380
- Fax : +82-2-548-0870
- E-Mail : gcs@bluebird.co.kr
- Address : 1242, Gaepo-dong, Gangnam-gu, Seoul, Korea

3. Work hours

- Mon.-Fri. : 9 A.M. ~ 6 P.M. (GMT Time: +9 Hours)
- We do not work on Saturday, Sundays and National Holidays.

4. How to ask for after-sales service

- For after-sales service, please contact your local dealer or our customer care center.
- Do not remove the label of the product on purpose.
- Make sure to deliver the product in a safe way.

Bluebird Soft is not liable for device loss during delivery.

For any enquires of problems or inconveniences while using the product please call +82-2-1588-1380.